



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,664	02/02/2004	Hideaki Ito	Q78961	8395

23373 7590 10/24/2006
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

MCPHERSON, JOHN A

ART UNIT PAPER NUMBER

1756

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/768,664

Applicant(s)

ITO, HIDEAKI

Examiner

John A. McPherson

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 7,045,257.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application, drawn to a black matrix containing metal microparticles, completely encompass (i.e. are anticipated by) the claims of the patented invention, drawn to a black matrix containing fine metal particles dispersed in a polymer, wherein the fine metal particles are present in a specified volume fraction.

2. Claims 1-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 and 11-20 of copending Application No. 10/825,657. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application, drawn to a method for producing a black matrix comprising forming a layer containing metal microparticles, completely encompass (i.e. are anticipated by) the claims of the patented invention, drawn to method for forming a liquid crystal display comprising providing a substrate and forming a light-shielding layer by coating the substrate with a coating liquid containing a binder and fine particles of metal with an average diameter of 1-3000 nm.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6, 8, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,686,980 to Hirayama et al. (Hirayama). Hirayama discloses a light-shielding film, and a liquid crystal display device including the light shielding film, and a material suitable for forming the light shielding film, wherein the light shielding film

Art Unit: 1756

includes at least a film prepared from an inorganic insulating material and fine particles of metal dispersed in the insulating material film. See the abstract; column 3, lines 14-65; column 5, lines 54-65; and column 6, lines 46-57.

4. Claims 1-4, 6, 8, 10, 12, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,718,992 to Sato et al. (Sato '992). Sato '992 discloses a substrate having a light shielding layer, for example a color filter or a counterelectrode substrate for a TFT array in a liquid crystal display, wherein the light shielding layer comprises electrically conductive fine particles, exemplified by metals such as gold, platinum, palladium, silver alloys, copper and nickel. See the abstract; column 9, lines 12-49; column 20, lines 46-51; and Coating No. Y-7 of Table 3. Furthermore, the light shielding layer may be produced from a light-shielding resin composition exhibiting photocurability. See column 14, lines 25-41.

5. Claims 1-4, 6, 8, 10, 12, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 08-021992 (JP '992). JP '992 discloses a black matrix substrate for a liquid crystal display comprising a gelatin film containing silver particles. See the abstracts; paragraph [0018] and [0028]-[0030] of the computer-generated translation; and Figures 1 and 3. With respect to claims 3 and 16, it is the position of the Examiner that the silver particles must inherently have an average particle diameter of 60-250 nm because it is taught that the protect-from-light part **12b** comprises a black silver granule child (paragraph [0029]), and the silver granules (i.e. particles) are not black if they have

Art Unit: 1756

a particle diameter outside this range (e.g. see page 4, lines 12-16 of the present specification).

6. Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,916,487 to Weidlich et al. (Weidlich). Weidlich discloses a silver sol comprising an essentially transparent polymer matrix and particles of silver of a mean size smaller than 500 nm, especially 20-250 nm. See the abstract and column 1, lines 59-67. Furthermore, the composition is exemplified as a black silver sol comprising silver particles having a mean diameter of 250 nm. See column 4, lines 51-54.

It is the position of the Examiner that the phrase "for producing a black matrix" in the preambles of claims 1, 3 and 4 is a statement of intended use for the colored composition of the present invention, and therefore does not provide a patentable distinction over a prior art composition which comprising the same material.

7. Claims 1, 2, 4, 6, 8, 10, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,501,900 to Harada et al. (Harada). Harada discloses a black matrix substrate, a color filter and a liquid display device, wherein the black matrix substrate comprises a black pattern formed on the substrate, and the black pattern includes at least metal particles in a resin pattern. See the abstract; column 2, line 36 to column 3, line 38,

8. Claims 1, 2, 4, 6, 8, 10, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,057,900 to Ono et al. (Ono). Ono discloses a color liquid crystal

display comprising a color filter substrate, the color filter substrate comprises a black matrix, wherein the black matrix contains in a resin one member selected from a group including fine metal particles. See the abstract; column 13, line 36 to column 14, line 3 and column 14, lines 38-42. Furthermore, Ono discloses that the black matrix comprising the fine metal particles may be fabricated by a black photoresist method comprising dispersing fine metal particles in a photosensitive resin and subsequently patterning the resultant dispersant by a photolithographic technique. See column 1, lines 47-55.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 4-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,057,900 to Ono et al. (Ono) in view of US 5,622,794 to Sato et al. (Sato '794). The disclosure of Ono is discussed above in paragraph 8. However, with respect to claims 5, 7, 9, 11, 13 and 15, Ono does not disclose a photosensitive transfer material.

Sato '794 discloses a method of forming a light shielding layer comprising the steps of preparing a light-shielding photosensitive transfer material comprising a light-shielding photosensitive resin layer on a temporary support; attaching the light-shielding

Art Unit: 1756

photosensitive transfer material to a color filter using a laminator; removing the temporary support; exposing the light-shielding photosensitive resin layer to light via a mask; and developing the sample to form a light shielding film. See the abstract and column 10, line 37 to column 12, line 18. It would have been obvious to one skilled in the requisite art to utilize a photosensitive transfer material, as taught by Sato '794, to provide the photosensitive resin of Ono because it is taught that such a transfer system is an especially preferred means for providing a light-shielding photosensitive resin layer onto a substrate (e.g. see column 9, lines 1-12 of Sato '794).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

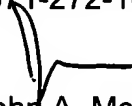
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Application/Control Number: 10/768,664

Page 8

Art Unit: 1756

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John A. McPherson
Primary Examiner
Art Unit 1756

JAM

10/18/06